U.S. Department of Transportation
Research and Special Programs Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIAL
CERTIFICATE NUMBER USA/0221/S, REVISION 6

400 Seventh Street, S.W.
Washington, D.C. 20590

This certifies that the sources described below have demonstrated their ability to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency[1] and United States of America[2] for the transport of radioactive materials.

1. Source Identification - Isotope Products Laboratories Line Source, 301 Series.

2. Source Description - The source described by this certificate is a welded cylindrical double encapsulation constructed of Type 304 or 304L stainless steel with external dimensions of 0.3 cm (0.12") in diameter x 2.5 cm (1.0") to 84.0 cm (33") in length. Construction must be in accordance with Isotope Products Laboratories drawing nos. 3402 or 3414 (attached).

3. Radioactive Contents - The source described by this certificate is authorized to contain up to 11.1 GBq (0.30 Ci) of any one of the following radionuclides in the chemical form identified .

Radionuclide	Form
Na-22	NaCl in ceramic
Co-57	$CoCl_2$ in ceramic
Co-60	$CoCl_2$ in ceramic
Ge-68	GeO in ceramic
Cs-137	CsCl in ceramic
Ba-133	$BaCl_2$ in ceramic
Eu-152	$EuCl_3$ in ceramic
Eu-154	$EuCl_3$ in ceramic
Eu-155	$EuCl_3$ in ceramic
Gd-153	$GdCl_3$ in ceramic
Am-241	AmO_2 in ceramic

4. Quality Assurance - records of quality assurance activities required by Paragraph 209 of the IAEA regulations shall be maintained and made available to authorized officials for a least three years after the last shipment authorized by this certificate. Consignors and consignees in the United States exporting or importing shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.

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[1] "Safety Series No. 6, Regulations for the Safe Transport of Radioactive Materials, 1985 Edition, As amended 1990," published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

[2] Title 49, Code of Federal Regulations, Parts 100 - 185, United States of America.

CERTIFICATE USA/0221/S, REVISION 6

5. Expiration Date - This certificate expires on August 31, 2004.

This certificate is issued in accordance with paragraph 803 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the petition and information dated May 20, 1999 and August 13, 1999 submitted by Isotope Products Laboratories, Burbank, CA and in consideration of other information on file in this Office.

Certified by:

AUG 20 1999

Alan I. Roberts (DATE)
Associate Administrator for Hazardous Materials Safety

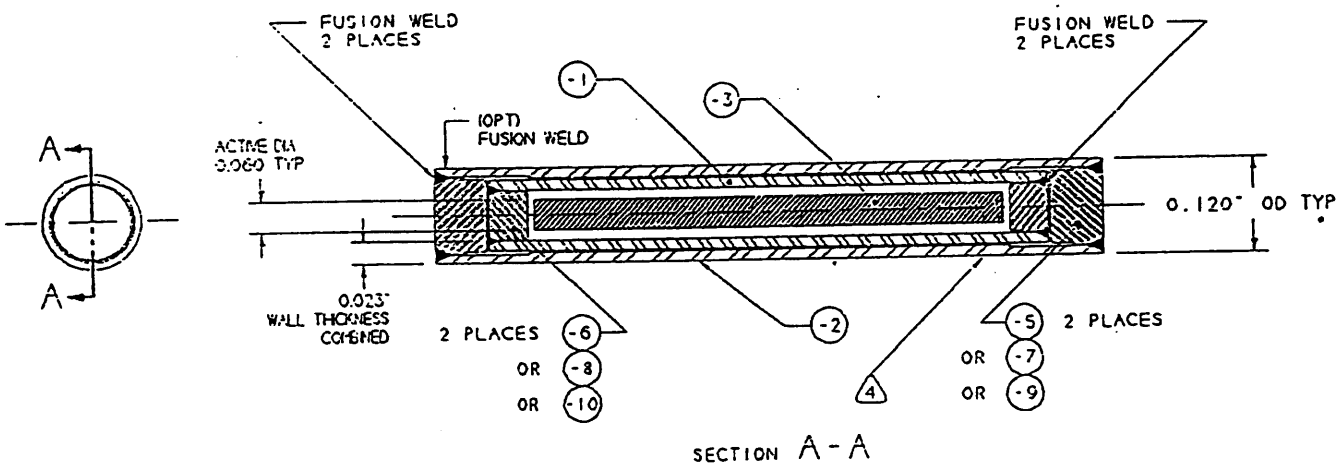
Revision 6 - Issued to upgrade to 1985 IAEA regulations and to extend the expiration date.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF SEALED SOURCE

(AMENDED IN ITS ENTIRETY)

NO.: CA0406S154S DATE: January 22, 1998 ATTACHMENT: 1

SEALED SOURCE TYPE: Line Source



SECTION A-A

P/N:	PLUG LENGTH	TOTAL LENGTH	ACTIVE LENGTH
A3402-AXXXXX	0.040	XX.XXX+0.160	XX.XXX
A3402-BXXXXX	0.0625	XX.XXX+0.250	XX.XXX
A3402-CXXXXX	0.125	XX.XXX+0.500	XX.XXX
A3402-DXXXXX	0.098	XX.XXX-0.196	XX.XXX

6. CAPSULE COMPONENTS ARE 304 or 304L STAINLESS STEEL. ACTIVE ELEMENT IS CERAMIC
5. PACKAGE AND IDENTIFY PART NUMBER THEREON
4. ENGRAVE CHARACTERS 0.060 HIGH x 0.003 DEEP MAX ON CIRCUMFERENCE OF 3402-2 0.500" MIN FROM END:
   IPL
   NUCLIDE
   ACTIVITY
   SERIAL NUMBER

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3. TOLERANCES: 0.XXX ±0.002. 0.XX ±0.01. 0.X ±0.1. ANGLE ±0.5°
2. DIMENSIONS ARE IN INCHES
1. ASSEMBLE COMPLETE PER ENGINEERING DRAWING
   PRESS FIT PLUGS INTO TUBES
   AND FUSION WELD IN PLACE

NOTE UNLESS OTHERWISE SPECIFIED

ISOTOPE PRODUCTS LABORATORIES
BURBANK. CALIFORNIA 91504

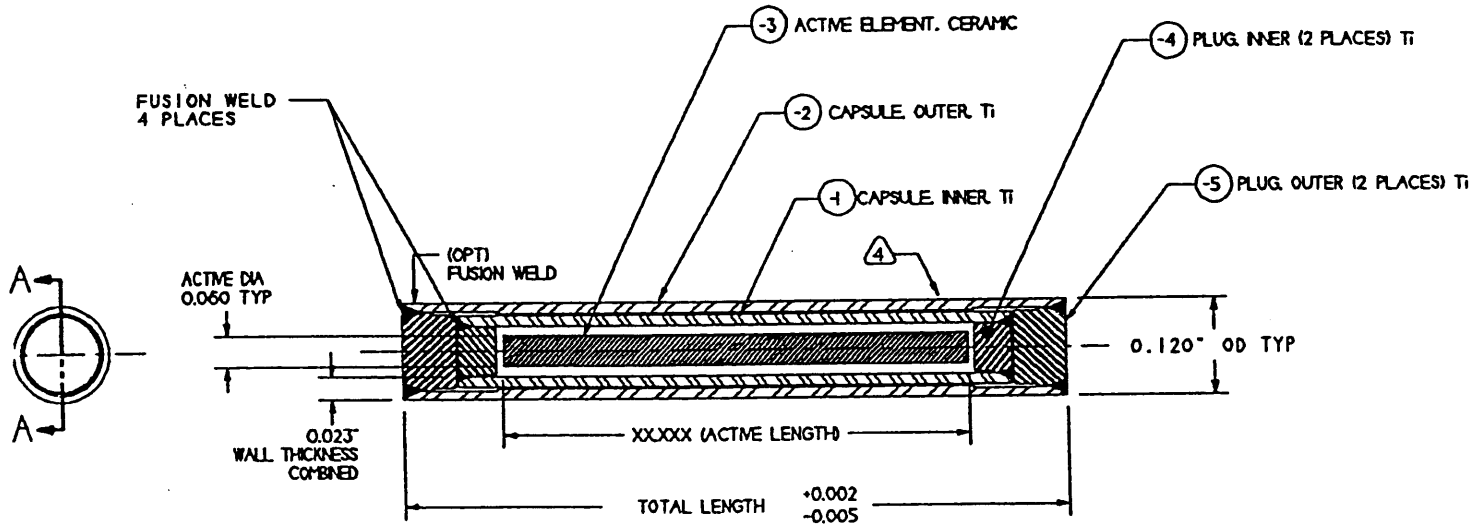
SCALE: NTS	APPROVED: Michael Davis	DESIGNED: JMD/RLT
DATE: 09/08/86		REV/CHG: B
TITLE: DOUBLE ENCAPSULATED LINE SOURCE (301B)		SHEET: 4 OF 10
SERIES: LINE SOURCES		DRAWING NUMBER 3402

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF SEALED SOURCE

(AMENDED IN ITS ENTIRETY)

NO.: CA0406S154S DATE: January 22, 1998 ATTACHMENT: 2

SEALED SOURCE TYPE: Line Source



SECTION A-A

P/N:	PLUG LENGTH	TOTAL LENGTH	ACTIVE LENGTH
A3414-AXXXXX	0.040	XX.XXX+0.160	XX.XXX
A3414-BXXXXX	0.0625	XX.XXX+0.250	XX.XXX
A3414-CXXXXX	0.125	XX.XXX+0.500	XX.XXX
A3414-DXXXXX	0.098	XX.XXX+0.196	XX.XXX

5. PACKAGE AND IDENTIFY PART NUMBER THEREON
4. ENGRAVE CHARACTERS 0.060 HIGH x 0.003 DEEP MAX ON CIRCUMFERENCE OF 3414-2 0.500" MIN FROM END:
   IPL
   NUCLIDE
   ACTIVITY
   SERIAL NUMBER

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3. TOLERANCES: 0.XXX ±0.002. 0.XX ±0.01. 0.X ±0.1. ANGLE ±0.5°
2. DIMENSIONS ARE IN INCHES
1. ASSEMBLE COMPLETE PER ENGINEERING DRAWING
   PRESS FIT PLUGS INTO TUBES
   AND FUSION WELD IN PLACE

NOTES: UNLESS OTHERWISE SPECIFIED

ISOTOPE PRODUCTS LABORATORIES
BURBANK, CALIFORNIA 91504

SCALE: NTS	APPROVED:	DESIGNED: JMD/RLT
DATE: 06/16/95		REV/CHG: B
TITLE: DOUBLE ENCAPSULATED LINE SOURCE (301C) TITANIUM VERSION		SHEET: 4 OF 7
SERIES: LINE SOURCES		DRAWING NUMBER 3414